

Background

The SNC Strategic Plan identifies the need to develop Performance Measures and Indicators to measure the success of SNC projects and programs, as well as progress toward improving the environmental, economic and social well-being of the Region. At the July 2007 meeting, the Board approved a process for the development and use of such Indicators and Performance Measures at three levels:

- **System Indicators** to measure the well-being of the Sierra Nevada region. Examples might include per capita income of Sierra residents, measures of water turbidity or ppb of mercury, and percentage of home ownership within the Region. **Indices** are groups of Indicators.
- **Program Performance Measures** to track progress in achieving program goals and meeting the SNC's overall mission. Examples might include the total number of acres protected by SNC-funded conservation easements, recreational visitor days on public lands, and measures of increased collaboration resulting from SNC-funded projects.
- **Project Outcome Performance Measures** to track project efforts against the expected outcomes. Examples include miles of trails constructed, tons of carbon sequestered/avoided, and number of archeological sites protected as a result of a project.

At the December 2007 meeting, the Board approved an interim list of Performance Measures specifically for projects awarded during the 2007-08 grant cycle through Proposition 84 funding. This comprised the initial stage of the overall effort.

The process of developing Indicators and Performance Measures has now advanced to the next stage, involving the development of a set of recommended Indicators and Performance Measures—along with an implementation plan—for presentation to the Board at the June 2008 meeting. This stage is further described below.

Current Status

In January of 2008, the SNC engaged a team led by Propoint Technology and in collaboration with the Sierra Institute for Community and the Environment, Environmental Incentives, and the Sierra Business Council. The team is engaged to develop System Indicators and program and project outcome Performance Measures as defined above. SNC executives, managers, and staff work with and provide direction and support to the team. The project is organized around the following major tasks:

- **Project Planning:** Working in close collaboration with SNC staff, the project team developed a detailed project work plan and schedule, including a public input plan to involve various external entities and a stakeholder advisory group.

- **Development of Conceptual Lists:** The project team researched performance data currently being collected or developed by other entities at the local, state, and national levels and applied the team's extensive knowledge and experience related to performance measurement to develop initial conceptual lists of Measures and Indicators. These are included herein as Attachment A and B, respectively. The conceptual list of Project Outcome Measures has been embedded within the Program Performance Measures list; this reflects the emphasis in deriving, where applicable, project measures from program measures to help ensure that project activities link to program goals.
- **Development of Draft Performance Measures and Indicators:** During this task, the team will engage the public, grant recipients and other SNC stakeholders to get their feedback, input, and suggestions regarding appropriate performance measures and indicators. Based on this input and additional research and analysis, the team will prepare a final draft set of Performance Measures and Indicators for presentation to the Board in June. The team will also prepare a draft implementation and governance plan for presentation to the Board, which will describe the communications, systems and processes needed to gather and report performance information, integrate it into SNC decision-making, and make it available for use by others in the region.
- **Development of Final Performance Measures and Indicators:** Based on direction provided by the Board, the team will incorporate final revisions to the set of Performance Measures and Indicators as appropriate, as well as the implementation plan. This task is expected to be completed in July 2008.

Next Steps

Over the next few months, the team will obtain broad input and go through the process of developing a final recommended set of Performance Measures and Indicators to present to the Board in June. Upcoming activities include the following:

- **Obtain Broad Input:** A cornerstone of the project is to invite input from the public, grant recipients, and other stakeholders on potential Performance Measures and Indicators as well as the criteria the team will use to determine the final set of recommended measures. (Preliminary criteria are included in the attachments).

- ✓ **Subregional workshops and Web conferences**

A public workshop will be held in each of the six sub-regions along with two additional workshops conducted via web conference. The subregional workshops and web conferences are open to anyone. Workshops will provide an overview of the project, an explanation of how Performance Measures and Indicators will be used by the SNC and how they might be put to use by other stakeholders, an introduction of Performance Measures and Indicators under consideration, a discussion of the process

for selecting Performance Measures and Indicators and an invitation to participate in the online survey (see below). Attendees will be asked for comment on the information presented.

✓ Stakeholder Advisory Group

A Stakeholder Advisory Group has been created to provide additional input at specific steps in the process. Semi-structured interviews will be conducted with members of the Stakeholder Advisory Group and a workshop will be held with the group to capture their perspectives on the process for selecting Performance Measures and Indicators, criteria used, and value of the individual Performance Measures and Indicators.

✓ Surveys

Stakeholder groups and the general public, including visitors to the SNC web site, will be invited to provide input on each of the Program Measures via the completion of an on-line survey designed to capture both the informational value of a Performance Measure, and its use for decision-making and program reporting. The survey is designed according to the criteria rating described in Appendix A.

- ***Evaluate and Select Indicators and Measures:*** The information collected from the public input process in combination with additional research and analysis performed by the project team will be used to develop a recommended set of draft System Indicators and Performance Measures. The selection process and measures will be structured to achieve the following:

- ✓ Be informed by the wisdom of diverse stakeholders with a variety of perspectives;
- ✓ Meaningfully engage stakeholders in their development and refinement;
- ✓ Be concise and allow for clear reporting and use;
- ✓ Be collected, used, and regularly reported by the SNC to advance learning, understanding of the region, and program improvement;
- ✓ Be available and useful to stakeholders throughout the Sierra region;
- ✓ Help understand how programs can contribute to improving economic, environmental, and social health.

The final recommended set of Performance Measures and Indicators will then be fully evaluated and documented, including capturing detailed operational information needed to implement the Indicator or Performance Measure. This analysis will inform the development of the implementation and governance plan (outlined below), and will also be presented to the Board at the June Board meeting. Following the Board meeting, adjustments will be incorporated into the final project deliverables.

- ***Develop Draft Implementation and Governance Plan:*** The implementation and governance plan will involve direct work with SNC to identify ways Indicators and Performance Measures will be systematically used, both internally and externally, for adaptive improvement. A plan will be developed to articulate the relationship of Performance Measures to program improvement and to future strategic planning processes. It will also define annual and five-year cycles of data collection and reporting.

Recommendation

No action is needed by the Board at this time, although input on the process and work to date is welcome. The final draft set of recommended Performance Measures and Indicators and implementation recommendations will be brought to the Board for review and approval at the June meeting. The Chair may wish to appoint a committee to provide guidance to the project team.

Attachment A Conceptual Performance Measures

This attachment includes an initial, conceptual list of Performance Measures (PM), which integrates both initial Program and Project Outcome Performance Measures. The team is compiling information related to each performance measure using a rating table. An excerpt from the table is included on page eight. For each candidate performance measure, the table will be populated with descriptive information and a rating of 1 to 5 relative to each of the seven proposed criteria. The specific information and rating criteria are outlined below along with information regarding how the 1 to 5 rating will be established for each criteria.

Performance Measure Description

This description provides additional insight into what the PM entails, need for the PM, and other key details that may be relevant to understanding the PM.

SNC Related Programs

SNC's Strategic Plan defines 7 program areas. This informational category indicates the program areas that could utilize this PM.

Level of Effort

- 5 Easy:** Requires less than \$1,000 and 40 hours of staff time annually, and no specialized expertise to collect, analyze and report;
- 3 Moderate:** Requires between \$1,000 and \$25,000 and 40 to 250 hours of staff time annually, and some specialized expertise to collect, analyze and report;
- 1 Difficult:** Requires more than \$50,000 and 500 hours of staff time annually, and significant specialized expertise to collect, analyze and report.

Connection to Social, Economic or Environmental System

- 5 Direct:** Directly agreeable to a potential System Indicator;
- 3 Strong:** Strongly related System status - i.e. may affect status directly or with well accepted assumptions;
- 1 Weak:** Very weakly or not related to System status - i.e. requires assumptions that are not well understood or not expected to result in a change of System Indicators.

Relationship to Other Efforts

- 5 Exact:** Exact match to reporting measures used by 3 or more other CA organizations;
- 3 Good:** Good match to reporting measures used by 1 or 2 other CA organizations;
- 1 None:** Not used by other CA organizations.

Rating Criteria for SNC Input

SNC management and staff will be asked to respond to each of the following rating categories in order to inform the selection of 10 to 20 Performance Measures that will be fully developed and evaluated in detail. SNC management and staff will also have the opportunity to answer the two additional questions targeted to a broader, stakeholder audience.

Ability to Fund

- 5 Guaranteed:** Sufficient, consistent funding is guaranteed to be available for SNC or through SNC partners for the data collection, management, analysis and reporting effort needed for this PM;
- 3 If Prioritized:** Supporting data collection, management, analysis and reporting is possible to support by SNC and partners as long as given moderate priority by management;
- 1 Very Unlikely:** It is very unlikely that there will be support for the data collection, management, analysis and reporting effort needed for this PM.

Meaningful for Management Decisions

- 5 Very Meaningful:** Easily and strongly related to funding and staffing allocations AND natural resource management decisions;
- 3 Moderately Meaningful:** Can relate to funding and staffing allocations OR natural resource management decisions;
- 1 Not Meaningful:** Not related to funding and staffing allocations AND natural resource management decisions.

Rating Criteria for Stakeholder Input

Stakeholders will be asked to respond to each of the following rating categories in order to inform the selection of 10 to 20 Performance Measures that will be fully developed and evaluated in detail.

Usability

- 5 Frequently Useful:** I or my organization will use information related to this measure frequently for reporting progress and making decisions;
- 3 Potentially Useful:** I or my organization will potentially refer to this information at times for reporting progress and making decisions;
- 1 Not Useful:** I do not foresee any use for this information by me or my organization.

Information Value to You

- 5 Clear:** This PM provides a clear and meaningful understanding of what is a good and bad result or trend;
- 3 Needs Explanation:** This PM is understandable and meaningful given some explanation and context;
- 1 No Value:** This PM means very little to me and is unlikely to be meaningful even with explanation.

Conceptual SNC Performance Measures (PMs) Rating Table

Please see the notes at the bottom of the table.		Related SNC Programs							Connection to Social, Economic or Environmental System		
PM Name	PM Description	Tourism & Recreation	Physical, Cultural, Archaeological, Historical, Living Resources	Working Landscapes	Natural Disaster Risks	Water & Air Quality	Regional Economy	Public Lands	Level of Effort	Relationship to Other Efforts	
(short and memorable)	(additional PM information)								(Rating & short rationale)	(Rating & short rationale)	(Rating & short rationale)
Acres of Land Easements	Area under development restriction with a focus on ecosystem health provides a measure of the extent of natural resource protection provided by SNC activities	Ω	Ω	Ω		Ω		Ω	5 Acquired through project reports and must be checked to ensure no double counting	4 If an indicator of land-use distribution is selected, this would directly aggregate.	5 Used by land trusts, state agencies and local communities
Acres of Land Acquired	Area of critical lands acquired to protect, conserve, or restore resources, characterized by purpose (protect, conserve, or restore physical, cultural, archaeological, historical, or living resources) and priority level	Ω	Ω	Ω		Ω		Ω	5 Relatively simple, assuming good project-level record-keeping; must take care to accurately describe extent of SNC's contribution	4 If an indicator of land-use distribution is selected, this would directly aggregate.	5 Most of them measure numbers or acres of restoration, enhancement, preservation, and acquisition projects
. . .Continues. See Conceptual List of Candidates on next page.											

Notes:

The three right-most columns contain information provided by the project team. Each column includes a numeric rating and a short rationale for the rating given

Higher ratings signify a PM's greater desirability in that category

Ω indicates that the PM is useful for measuring performance in the respective SNC program area, by column

Conceptual SNC Performance Measures (PMs)

Candidate PMs

1. Acres of Land Easements
2. Acres of Land Acquired
3. Acres of Land Exchanged
4. Number of Event Days
5. Tons of Carbon Sequestered/Avoided
6. Number of New Recreation Access Points
7. Feet of Trail/Path Length Constructed
8. Number of Trail Segments Connected
9. Size and Number of Informational Databases Created
10. Number of Technical Assistance Requests Met by SNC Staff
11. Number of Collaboratively Developed Project Prioritization Plans
12. Linear Feet of Stream Bank Protected
13. Acres of Wetland Restored or Improved
14. Stream Miles Opened to Migratory Fish
15. Number of Acres Under Best Management Practices
16. Percent Change in Fish Tissue Contaminants Index
17. Tons of Pollutant Reduced Per Year
18. Number of Projects
19. Funds Directly Distributed in the Sierra Nevada
20. Funds Leveraged for the Sierra Nevada
21. Hours Leveraged for the Sierra Nevada
22. Dollar Value of In-kind Equipment Leveraged
23. Number of Awards
24. Number of "Quality Enhancement Points"
25. Number of Awards
26. Number of "Quality Enhancement Points"
27. Number of People Reached
28. Hours of Curriculum Generated
29. Number of facilities Improved or Constructed
30. Internet Connection Capacity Gain
31. Acres Included in New or Updated Hazard Maps
32. Number of Priority catastrophic wildfire risk and hazard areas identified
33. Acres of Wildland Urban Interface Treated
34. Value of Area Protected
35. Number of Communities With Plans to Address Natural Hazards
36. Acres of wildfire risk reduction projects in high-priority areas
37. Number of Cultural, Historical, and Heritage sites Preserved
38. Number of best practices developed for working landscapes
39. Visitor Capacity Created
40. Number of Business Ventures and Organizations Created
41. Number of Jobs Created
42. Number of biomass utilization projects developed
43. Number of reports summarizing best available information on potential effects of climate change
44. Increased Knowledge and Changed Behavior
45. Number of agritourism & ecotourism development projects
46. Number of Fish In Restored Streams

*This represents a preliminary conceptual list of Performance Measure (PM) candidates.
The project team will refine and adjust the PMs and information provided.*

Attachment B Conceptual System Indicators

This attachment includes an initial, conceptual list of Sierra Nevada System Indicators. The System Indicator (SI) Rating Table will be populated with candidate SIs. An excerpt from the table is included on page twelve. For each SI, the table will include a brief description of the SI (including measurement units) and information regarding:

- What concept the SI measures;
- Spatial scale at which data can be collected;
- Frequency with which data can be collected;
- Source or sources of data;
- Identification of other entities that use the Indicator.

Indicators will be assessed using the selection criteria described below.

Criteria for Selecting Final Set of Indicators

Feasibility

Cost, time, and expertise required;

Temporal Sensitivity

Ability to detect and measure at a meaningful temporal scale;

Spatial Scale

Resolution allows for application at state, regional, sub-regional, and community levels;

Credible

Data is obtained from a reliable source and analytical methods are sound;

Intuitive

Common sense concept and easily understood by a broad audience;

Decision-useful

Clear relationship between system condition and management and policy decisions;

Comprehensive

Captures system complexity spanning multiple areas of interest or concern.

For each of the above criteria, we have developed several questions for discussion and comment that will be used to ultimately rank the Indicators.

Criteria for SNC Input

- Intuitive
- Decision-useful
- Comprehensive

Criteria for Stakeholder Advisory Group Input

- Temporal Sensitivity
- Spatial Scale
- Credible
- Decision-useful
- Comprehensive

Criteria for Public Input

- Spatial Scale
- Credible
- Intuitive
- Decision-useful

Conceptual SNC System Indicators (SIs)

SI Name/Units	SI Description	Concept Measured	Spatial Scale of Data Collection	Frequency of Data Collection	Data Sources	Other Entities Using SI
(short and memorable)	(additional PM information)					
Economic						
Rate of job growth to population growth	Measures the rate at which jobs grew in the region and sub-regions to identify the disparity between job growth and population.	Productivity (Jobs:Base Year:Time)	Regional and Sub regional	annually	California Employment Development Department, California Department of Finance	Most Regional Indicators Projects
Gross Domestic Product (\$)	Measure the size of the economy as the total value of all goods, services over a given period of time	Productivity (consumption+gross investment+government spending+export-imports)	Regional and Subregional	annually	California Department of Finance	Most Regional Indicator Projects

...Continues. See Conceptual List of Candidates on next page.

Conceptual SNC System Indicators (SIs)

Candidate SIs

Economic

1. Rate of job growth to population growth
2. Gross Domestic Product (\$)
3. Agricultural production
4. Farmland acreage
5. Number of farms selling directly to individuals
6. Cattle Production
7. Timber production
8. Earnings per job
9. Economic diversity index
10. Employment by sector
11. Ratio of transfer income to earned income
12. Travel and Tourism spending
13. Real value of ecosystem services
14. Payments captured for ecosystem services
15. Goods and services leakage
16. Locally owned businesses percentage
17. High speed internet access
18. Vehicle Miles Traveled in/out

Social

1. GINI coefficient
2. Population (People)
3. In-migration
4. Demographics of new residents
5. Relative/absolute % below the poverty line
6. Children in family receiving assistance

7. School's free or reduced lunch programs
8. Percentage of income devoted to housing
9. Percentage of renters/homeowners
10. Unemployment/Underemployment
11. Seasonal employment
12. National Register of Historic Places stats
13. Visitor Days
14. Educational Attainment
15. Public school funding
16. Community programs in place to promote general awareness of air, water, and climate issues
17. SI Index
18. Volunteer hours
19. Number of registered 501c3s
20. % voting in elections (primary, midterm, etc.)
21. Youth organizations
22. Medical professionals per capita
23. Average wait time to see provider
24. Access to care for underserved communities: clinics for the uninsured
25. % children covered, % of elderly covered
26. Advances in/access to telemedicine
27. # of people on medicare/medicaid
28. Community arts programs
29. Organizations focused around the arts
30. Asthma

*This represents a preliminary conceptual list of System Indicator (SI) candidates.
The project team will refine and adjust the SIs and information provided.*

Conceptual SNC System Indicators (SIs)

Candidate SIs (continued)

- | | |
|---|---|
| 31. % violent crime per thousand | 12. Area in percent of ecosystem or land or affected by processes or agents beyond the historic range of historic variation |
| 32. Property crime per thousand | 13. Diversity of habitat type |
| 33. Substance abuse arrests per thousand | 14. Population viability of state and federal threatened, endangered and candidate species |
| 34. Incidents of family violence | 15. % of habitat protected by indicator species |
| 35. Public Transport funding | 16. Number of species that occupy a small portion of their former range |
| 36. Commuting to work out of area | 17. Invasive species |
| 37. Transportation General Plan | 18. Particulates |
| 38. Institutions/projects in place addressing inequalities amongst race/class | 19. Ozone, Nox, Carbon |
| 39. Feedback mechanisms in place for disenfranchised people | 20. Solid waste generated and disposed |
| 40. Diversity in decision making processes | 21. Point sources of toxins |
| 41. Access to affordable food | 22. Total forest ecosystem biomass and carbon pool by forest type age class and successional stages |
| <u>Environmental</u> | |
| 1. Ratio of Public to Private Land Ownership | 23. Hydropower |
| 2. Acres of Fire Risk | 24. Biomass Co-gen plants |
| 3. Residential, commercial, industrial, and open space | 25. Creative production of energy |
| 4. Acres of conversion of forest and rangeland to urban uses | 26. Electricity prices |
| 5. Mixed use in downtown areas | 27. Groundwater |
| 6. Farmland Acreage | 28. Impaired Streams and Rivers |
| 7. Acreage in private conservation easements | 29. Agricultural Production |
| 8. Second Homes | 30. Organic farming |
| 9. Acreage enrolled in Williamson Act | 31. Vehicle miles traveled on California state highways |
| 10. Acreage in Timber Production Zone | 32. Personal vehicle use of gasoline per capita |
| 11. Snow pack/rainfall data | 33. Diesel bus and truck use of fuel per capita |

*This represents a preliminary conceptual list of System Indicator (SI) candidates.
The project team will refine and adjust the SIs and information provided.*